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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,453	03/22/2001	John M. Amaral	12173-002001	4581

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EXAMINER	
RYMAN, DANIEL J	
ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/814,453	AMARAL ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6 and 7*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 11-15, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al. (USPN 5,526,362).

3. Regarding claims 1, 13, and 25, Thompson discloses a method and apparatus for transmitting data packets received from a non-constant delay medium, the method comprising the steps of and the apparatus comprising means for: storing the data packets in a buffer (col. 2, lines 3-28); determining a play-out schedule for the data packets based on timing information (timestamp) in the data packets (col. 2, lines 3-28); and transmitting the data packets from the buffer in accordance with the play-out schedule (output timing for buffer) (col. 2, lines 3-28).

4. Regarding claims 2 and 14, Thompson discloses that two of the data packets contain time-stamps and the play-out schedule is determined based on a difference between the time-stamps (col. 2, lines 3-28, esp. col. 2, lines 22-28).

5. Regarding claims 3 and 15, Thompson discloses that the play-out schedule controls play-out of the two data packets at times that correspond to the time-stamps (col. 2, lines 3-28) where "correspond" is a broad term which only requires some sort of relationship between the play-out and the time-stamp.

6. Regarding claims 11 and 23, Thompson discloses determining an occupancy level of the buffer; and changing a frequency of a clock signal based on the occupancy level of the buffer (col. 2, lines 3-28).

7. Regarding claims 12 and 24, Thompson discloses that the frequency of the clock signal is changed so that the frequency corresponds to the frequency of a clock signal that was used by a device to produce the data packets (col. 1, lines 20-37 and col. 2, lines 3-28).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 4, 6-10, 16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (USPN 5,526,362) as applied to claims 1, 2, 13, and 14 above, and further in view of Woodhead et al. (USPN 5,640,388).

10. Regarding claims 4 and 16, Thompson does not expressly disclose that data packets that do not contain time-stamps are transmitted between the two data packets such that a delay exists between a second one of the two data packets and a last one of the data packets that do not contain time stamps; however, Thompson does disclose that the data packets can be of any type of asynchronous data (col. 2, lines 3-6) and that one application is to transmit video data (col. 3, lines 26-35). Woodhead teaches, in a system for controlling receiver station timing, that MPEG is a well-known protocol for transmitting video information where MPEG packet streams contain time stamps (col. 1, lines 15-37 and col. 2, line 54-col. 3, line 21). Woodhead also discloses that,

in MPEG, the time stamp only needs to be generated once every 100 ms such that not every packet contains a time stamp (Fig. 1 and col. 2, line 54-col. 3, line 34). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ MPEG as the packet protocol since MPEG is a well-known standard such that data packets that do not contain time-stamps are transmitted between the two data packets where a delay exists between a second one of the two data packets and a last one of the data packets that do not contain time stamps.

11. Regarding claims 6 and 18, Thompson does not expressly disclose identifying a data stream to which the data packets belong; wherein the play-out schedule is also determined based on the identified data stream; however, Thompson does disclose that the data packets can be of any type of asynchronous data (col. 2, lines 3-6) and that one application is to transmit video data (col. 3, lines 26-35). Woodhead teaches, in a system for controlling receiver station timing, that MPEG is a well-known protocol for transmitting video information where MPEG packet streams contain time stamps (col. 1, lines 15-37 and col. 2, line 54-col. 3, line 21). Woodhead also discloses that, in MPEG, packets are identified to determine to which data stream the data packets belong (PID) wherein the play-out schedule is also determined based on the identified data stream (col. 2, lines 7-9; col. 2, lines 20-41; and col. 4, line 59-29). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ MPEG as the packet protocol since MPEG is a well-known standard such that data packets are identified to determine to which data stream the data packets belong wherein the play-out schedule is also determined based on the identified data stream.

12. Regarding claims 7 and 19, Thompson in view of Woodhead discloses that the data stream is identified based on a packet identifier (PID) in the two data packets (Woodhead: col. 2, lines 7-9; col. 2, lines 20-41; and col. 4, line 59-29).

13. Regarding claims 8 and 20, Thompson in view of Woodhead discloses that the data stream comprises an MPEG (Motion Picture Experts Group) program stream that includes audio and video information (Woodhead: col. 1, lines 15-37 and col. 2, line 54-col. 3, line 21).

14. Regarding claims 9 and 21 Thompson does not expressly disclose that, if the play-out schedule indicates that first and second data packets are to be transmitted at the same time, the timing information in the second data packet is changed to indicate that the second data packet is to be transmitted after the first data packet; however, Thompson does disclose that the data packets can be of any type of asynchronous data (col. 2, lines 3-6) and that one application is to transmit video data (col. 3, lines 26-35). Woodhead teaches, in a system for controlling receiver station timing, that MPEG is a well-known protocol for transmitting video information where MPEG packet streams contain time stamps (col. 1, lines 15-37 and col. 2, line 54-col. 3, line 21). Woodhead also discloses that, in MPEG, if a packet is subject to a delay due to a device being capable of handling only a single packet at a time, then the packets will have the time stamp adjusted to reflect the additional delay that the packet experiences (col. 3, line 34-col. 4, line 31). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ MPEG as the packet protocol since MPEG is a well-known standard such that if the play-out schedule indicates that first and second data packets are to be transmitted at the same time, the timing information in the second data packet is changed to indicate that the second data

packet is to be transmitted after the first data packet in order to account for the additional delay that the second packet will experience.

15. Regarding claims 10 and 22, Thompson in view of Woodhead discloses that the first and second data packets belong to first and second data streams, respectively (Woodhead: col. 3, line 34-col. 4, line 31); and the timing information is changed in other packets in the second data stream (Woodhead: col. 3, line 34-col. 4, line 31) where the timing information will be changed in the other packets to account for the variable delay that the other packets will experience.

16. Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (USPN 5,526,362) in view of Woodhead et al. (USPN 5,640,388) as applied to claims 4 and 16 above, and further in view of Branstad et al. (USPN 5,533,021).

17. Regarding claims 5 and 17, Thompson in view of Woodhead does not expressly disclose that the data packets that do not contain time stamps are transmitted at a higher rate in order to reduce the delay. Branstad teaches, in an MPEG communication system, transmitting the data packets that do not contain time stamps at a higher rate (col. 10, lines 36-43) where in is implicit that this is done in order to reduce the delay. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to transmit the data packets that do not contain time stamps at a higher rate in order to reduce the delay.

18. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (USPN 5,526,362).

19. Regarding claim 26, incorporating the rejection of claims 1, 13, and 25, Thompson discloses all of the limitation of claim 26, as outlined in the rejection of claims 1, 13, and 25, except that the method is implemented using a computer program stored on a computer-readable

medium; however, Thompson does disclose that certain parts of the method can be implemented using software (col. 3, lines 58-60). Examiner takes official notice that implementing a method using software is well known in the art since software is very flexible. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the method using a computer program stored on a computer-readable medium since software is well known since it is flexible.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJR

Daniel J. Ryman
Examiner
Art Unit 2665

ALPUS H. HSU
PRIMARY EXAMINER